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ABSTRACT

A buffer structure for storing symbols received via a number of (e.g., physical or transport) channels. Each channel is associated with a particular time interval (e.g., a radio frame period or a transmission time interval (TTI)) over which the received symbols are processed (e.g., interleaved). The buffer structure includes a buffer and an address generator. The buffer is partitioned into a number of sections. One section is assigned to each channel being processed. Each section can be operated as a circular buffer. The address generator provides addresses for writing symbols to the assigned sections. If the buffer structure is used for the transport channels, the sections can be assigned to the transport channels based on the associated TTIs (e.g., in descending order of TTIs). For each coded composite transport channel (CCTrCH), the transport channels in the CCTrCH can be assigned to sections defined starting from a respective initial location (e.g., the top or bottom of the buffer) and continuing along a respective direction of the buffer (e.g., downward or upward).